

**The Management of Information Systems  
Maintenance Contracts Can Be Improved**

**May 2002**

**Reference Number: 2002-20-100**

**This report has cleared the Treasury Inspector General for Tax Administration disclosure review process and information determined to be restricted from public release has been redacted from this document.**



DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C. 20220

INSPECTOR GENERAL  
for TAX  
ADMINISTRATION

May 30, 2002

MEMORANDUM FOR DEPUTY COMMISSIONER FOR MODERNIZATION &  
CHIEF INFORMATION OFFICER

A handwritten signature in cursive script, reading "Pamela J. Gardiner".

FROM: Pamela J. Gardiner  
Deputy Inspector General for Audit

SUBJECT: Final Audit Report - The Management of Information  
Systems Maintenance Contracts Can Be Improved  
(Audit # 200120011)

This report presents the results of our review of the effectiveness of the Internal Revenue Service's (IRS) management of computer asset maintenance contracts.

In summary, as of August 2001, the IRS had awarded 606 contracts that included computer asset maintenance services costing an estimated \$157 million in Fiscal Year (FY) 2001. The IRS purchased maintenance contracts for its mission critical tax processing systems and other computer assets that IRS employees use in their jobs. IRS management monitors and measures maintenance contractor performance to protect the Government's interest from waste and abuse. In addition, actions have been taken that will simplify computer asset maintenance management including consolidating computer systems and purchasing personal computers with standardized operating systems, baseline software, and multi-year warranties. Systems consolidations and personal computer standardization have reduced the number and types of computer assets that must be maintained.

However, the IRS could improve computer maintenance management in the following areas:

- The IRS is unnecessarily paying for maintenance on some computer assets. Maintenance contracts costing an estimated \$451,400 per year<sup>1</sup> cover 5,236 computer monitors, 108 printers, and 206 fax machines. We estimated 10 percent of these items would fail and require repairs each year. Canceling the maintenance contracts and allocating approximately \$57,500 for the replacement of the computer monitors, printers, and fax machines anticipated to fail would save approximately \$393,900 per year (\$1,141,500 over 3 years).<sup>2</sup>
- Maintenance contracts costing an estimated \$13,600 per year<sup>1</sup> cover 175 equipment cabinets and racks. Cabinets and racks typically do not require periodic maintenance and, therefore, should not be included in maintenance contract coverage. Canceling these maintenance contracts would save approximately \$13,600 per year (\$39,400 over 3 years).<sup>2</sup>
- Maintenance contract information in the ITS computer asset management system is incomplete or not input. The IRS cannot associate specific assets with maintenance contract information on the procurement and financial management systems to more effectively manage the systems maintenance program. Therefore, the IRS has no assurance that maintenance coverage for assets no longer being used has been canceled and that mission critical assets are covered by maintenance contracts.

The Deputy Commissioner for Modernization & Chief Information Officer should issue an overall ITS policy requiring managers to ensure computer asset maintenance contracts are cost effective; cancel maintenance contracts that are more expensive than the cost of replacing the computer assets that fail; ensure maintenance contracts do not include items not requiring maintenance (e.g., cabinets and racks); and establish program accountability and work with the Procurement organization to ensure maintenance contract information is available for the asset management program.

Management's Response: The Deputy Commissioner for Modernization & Chief Information Officer agreed with our findings and will issue an ITS-wide overall computer asset maintenance management policy, which will establish management accountability for the program, ensure maintenance contracts are cost effective and do not include items that do not require maintenance, and ensure that ITS management coordinates

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<sup>1</sup> In some instances, the FY 2001 contracts covered only part of the year; therefore, the part year cost was annualized.

<sup>2</sup> See Appendix IV for a detailed explanation of the cost savings and anticipated failed items estimates.

with the Procurement organization to make maintenance contract information available to manage the maintenance program. Quarterly, ITS management will review a sample of contracts to determine the effectiveness of the policy and, if needed, take corrective action. Management's complete response to the draft report is included as Appendix V.

Copies of this report are also being sent to the IRS managers who are affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions or Scott E. Wilson, Assistant Inspector General for Audit (Information Systems Programs), at (202) 622-8510.

**The Management of Information Systems  
Maintenance Contracts Can Be Improved**

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## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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### **Background**

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The Internal Revenue Service (IRS) Information Technology Services (ITS) organization is responsible for operating and maintaining all computer assets used by the IRS. The IRS' computer assets include handheld, laptop, desktop, mid-range, and mainframe computers; telecommunications network equipment; peripheral equipment (e.g., printers, scanners, data storage devices, etc.); and computer software.

IRS management started the Asset Management Modernization Project (AMMP) to correct identified weaknesses in computer asset property management and control. The AMMP's goal was to establish IRS-wide computer asset ownership, management, and control, including maintenance. In support of the goal, the AMMP implemented the Information Technology Asset Management System (ITAMS) AssetCenter™ in March 2001 as the IRS' computer asset inventory tool. The AMMP was closed on April 30, 2001, and responsibility for asset management modernization was transferred to the End User Equipment and Services organization.<sup>1</sup> To further improve the ITS' computer asset management capabilities, ITS management will work with the IRS' Chief Financial Officer and Business Systems Modernization Office to develop the Integrated Financial System (IFS) that will integrate asset inventory information with procurement and financial information.

The ITS organization purchases maintenance contracts to have vendors repair computer assets when they fail and perform preventive maintenance that ensures computer assets perform reliably. The Procurement organization provides acquisition support to purchase the maintenance contracts. As of August 2001, the IRS had awarded 606 contracts that included computer asset maintenance services costing an estimated \$157 million in Fiscal Year (FY) 2001.

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<sup>1</sup> The End User Equipment and Services organization is responsible for IRS employees' desktop computer environment.

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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Audit work was conducted at the National Headquarters in New Carrollton, Maryland; the Procurement Office in Oxon Hill, Maryland; and the Tennessee Computing Center and Memphis IRS Center in Memphis, Tennessee, from August 2001 through January 2002. This audit was scheduled as part of the Treasury Inspector General for Tax Administration's FY 2001 Annual Audit Plan and was conducted in accordance with *Government Auditing Standards*. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

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### **The Internal Revenue Service Purchased and Managed Maintenance Contracts Covering Critical Systems and Took Actions That Will Simplify Maintenance Management**

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The IRS purchased maintenance services for its mission critical tax processing systems and other computer assets that IRS employees use in their jobs. Also, IRS management monitors and measures maintenance contractor performance to protect the Government's interest from waste and abuse. In addition, the ITS organization has been consolidating computer systems over the last several years. This action will result in simplified maintenance management because of the reduced number and types of mainframe and mid-range computer assets that must be maintained. Personal computers are being purchased with standardized operating systems, security configurations, and baseline software and include multi-year warranties.

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### **The Internal Revenue Service Pays For Unnecessary Maintenance on Computer Assets**

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The Office of Management and Budget (OMB) Circular A-123, *Management Accountability and Control*, requires IRS management to establish policies and procedures to ensure resources are protected from waste. During FY 2001, the ITS End User Equipment and Services organization published guidelines that permit local ITS offices to purchase maintenance contracts for computer assets, such as computer monitors and printers. The guidelines do not require management to ensure that maintenance contracts are cost effective. In addition, these guidelines do not apply to the Enterprise Operations

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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Organization,<sup>2</sup> which does not have written maintenance guidelines for its areas of responsibility. As a result, the IRS has purchased maintenance contracts that are not cost effective.

A review of the Procurement maintenance contract database description fields as of August 11, 2001, identified maintenance contracts costing an estimated \$451,400 per year<sup>3</sup> that covered 5,236 computer monitors, 108 printers, and 206 fax machines. We estimated 10 percent of these items would fail and require repairs each year. We also calculated that the IRS could replace the items anticipated to fail for approximately \$57,500. Therefore, by canceling the maintenance contracts on the computer monitors, printers, and fax machines and allocating funds to replace the equipment anticipated to fail, the IRS could save approximately \$393,900 per year (\$1,141,500 over 3 years using a net present value factor that assumes maintenance costs do not change and a federal funds rate of 1.75 percent).<sup>4</sup>

The Procurement maintenance contract database review also identified maintenance provided for 175 computer equipment cabinets and racks costing \$13,600<sup>3</sup> per year. Cabinets and racks typically do not require periodic maintenance and, therefore, should not be included in maintenance contract coverage. Canceling these maintenance contracts would save approximately \$13,600 per year (\$39,400 over 3 years using a net present value factor that assumes maintenance costs do not change and a federal funds rate of 1.75 percent).<sup>4</sup>

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<sup>2</sup> The Enterprise Operations organization is responsible for operation and maintenance of the IRS' mainframe and mid-range computer and telecommunications environments.

<sup>3</sup> In some instances, the FY 2001 contracts covered only part of the year; therefore, the part year cost was annualized.

<sup>4</sup> See Appendix IV for a detailed explanation of the cost savings and anticipated failed items estimates.



## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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Although the Enterprise Operations organization does not have written maintenance guidelines, starting in FY 2000, it began removing computer monitors, printers, fax machines, equipment cabinets, and racks from maintenance contracts covering mid-range computer systems because the maintenance was not cost effective. While this practice appears to be the correct thing to do, the lack of an overall IRS computer equipment maintenance policy has resulted in inconsistent practices and increased costs. Without a consistent maintenance policy and an effective review of the computer assets to be covered by maintenance contracts, the IRS risks wasting resources on unnecessary maintenance contracts.

### **Recommendations**

The Deputy Commissioner for Modernization & Chief Information Officer should:

1. Issue an overall ITS maintenance policy requiring managers to ensure that maintenance contracts are cost effective.

Management's Response: The Deputy Commissioner for Modernization & Chief Information Officer will issue an ITS-wide computer asset maintenance policy, which will ensure maintenance contracts are cost effective. Quarterly, ITS management will review a sample of contracts to determine the effectiveness of the policy and, if needed, take corrective action.

2. Cancel existing maintenance contracts that are more expensive than the cost of replacing the assets that fail.

Management's Response: The Director, End User Equipment and Services will develop a policy for desktop equipment, which establishes management accountability for desktop computer asset maintenance and ensures maintenance is less expensive than the cost of replacing assets that fail. This policy will be incorporated into the ITS-wide maintenance policy, which will ensure that

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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maintenance contracts are cost effective. Quarterly management reviews will determine the effectiveness of the policy.

Office of Audit Comment: In a follow-up discussion, ITS management clarified the response and advised that they will implement the policy, review the existing maintenance contracts, and cancel maintenance coverage that is more expensive than the cost of replacing the assets that fail.

3. Ensure that maintenance contracts do not include items not requiring maintenance (e.g., cabinets and racks).

Management's Response: The ITS-wide maintenance policy will ensure maintenance contracts do not include items that do not require maintenance. Quarterly management reviews will determine the effectiveness of the policy.

Office of Audit Comment: In a follow-up discussion, ITS management clarified the response and advised that they will implement the policy, review the existing maintenance contracts, and cancel maintenance coverage for computer assets that do not require maintenance.

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### **Asset Management System Maintenance Contract Information Is Incomplete or Not Input**

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The OMB Circular A-123 states that IRS management is responsible for controls that reasonably ensure resources are protected from waste and mismanagement, and reliable and timely information is maintained and used for decision making.

The ITAMS was implemented in March 2001 as the IRS' computer asset management control system and provides for the recording of maintenance contract information that would be associated with procurement and financial information residing in other systems. The associated maintenance information could provide ITS management with the ability to more effectively manage the systems maintenance program. For example, management would be able to determine whether maintenance coverage on retired assets has been canceled and mission critical assets are

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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covered by maintenance contracts. However, ITAMS maintenance information is incomplete or not input.

As of September 5, 2001, the ITAMS database listed 516,256 computer assets, including 384,990 in “In Use” status, 54,918 in “Retired” status (i.e., no longer being used), and 76,348 in other statuses. Our review of 114 randomly selected computer asset ITAMS records in “Retired” status<sup>5</sup> confirmed that incomplete information made it impossible to determine from the inventory records whether maintenance had been inappropriately paid on retired assets. In addition, the lack of information prohibited us from using procurement records to determine whether maintenance had been obtained on individual assets. Of 114 sample records:

- Seventy-five included no maintenance contract information.
- Twenty-three included incomplete maintenance contract information (e.g., contractor name, but no contract number). The information could not be traced to the maintenance contract payment records.
- Sixteen included the phrase ‘not applicable’ where the maintenance contract information should have been recorded, indicating that the retired computer assets had not been covered by a maintenance contract.

The maintenance contract information was incomplete or not input because ITS management does not require the input of the information. Management did not want to duplicate the recording of information that the Procurement organization already maintains for maintenance contract administration (e.g., contract number and contract line item numbers that contract administrators use to track maintenance on computer assets). Also, no one is responsible for ensuring accurate maintenance contract

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<sup>5</sup> The sample was selected from the population of 54,918 ITAMS records of computer assets in “Retired” status. See Appendix I for details about the ITAMS population and the sampling methodology.

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information is available to effectively manage the computer asset maintenance program.

The IRS plans to continue improving asset management with the IFS, which will include procurement and property management (i.e., computer assets), scheduled for implementation in FY 2005. While integration of the systems will improve asset management in the long-term, in the interim, the Procurement maintenance information should be entered into or linked with the ITAMS database to provide the ITS organization information to improve maintenance management. Although no instances were identified, without complete maintenance contract information, IRS management risks paying for maintenance of retired computer assets and not including mission critical computer assets in maintenance contracts.

### **Recommendations**

The Deputy Commissioner for Modernization & Chief Information Officer should:

4. Establish management accountability for the computer asset maintenance program.

Management's Response: The Deputy Commissioner for Modernization & Chief Information Officer will issue an ITS-wide policy, which will establish management accountability for the computer asset maintenance program.

5. Ensure maintenance contract information is available for program management by coordinating with the Procurement organization to determine and implement the best method for accessing the information.

Management's Response: The ITS-wide maintenance policy will require coordination with the Procurement organization to ensure that maintenance contract information is available to manage the computer asset maintenance program. Quarterly management reviews will determine the effectiveness of the policy.

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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Office of Audit Comment: In a follow-up discussion, ITS management clarified the response and advised that they will coordinate with the Procurement organization to determine the maintenance contract and asset information needed for maintenance management, and they intend to implement the changes needed to make maintenance information available.

### **Detailed Objective, Scope, and Methodology**

The overall objective of this audit was to determine whether the Internal Revenue Service (IRS) effectively manages Information Technology Services (ITS) computer asset maintenance contracts. To accomplish our objective, we:

- I. Analyzed Information Technology Asset Management System (ITAMS)<sup>1</sup> inventory records to determine whether maintenance information was accurately maintained.
  - A. Identified Government-wide and IRS policies and procedures for recording and updating systems maintenance contract information on the ITAMS database, Requisition Tracking System (RTS),<sup>2</sup> Integrated Procurement System (IPS),<sup>3</sup> and for management reviews that ensure the information was consistent and timely recorded.
  - B. Queried the ITAMS database on September 5, 2001, and identified 516,256 total computer assets, including 384,990 in “In Use” status, 54,918 in “Retired” status (e.g., not being used), and 76,348 in other statuses.
  - C. From the 54,918 “Retired” status computer asset records, selected and reviewed a random sample<sup>4</sup> of 114 records to determine whether the ITAMS maintenance contract information identified a current systems maintenance contract, and the RTS and the IPS showed that the maintenance contracts on the retired assets had been canceled.
- II. Reviewed systems maintenance contracts, system performance reports, and other management reports to determine whether management monitored and measured contractor performance to protect the IRS’ interests from waste and abuse.

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<sup>1</sup> The ITAMS is the IRS’ computer asset management control system.

<sup>2</sup> The RTS automates procurement and financial requests (i.e., initiate procurements, modify contracts, approve payments, etc.) and is used to add and delete computer assets from systems maintenance contracts. The RTS interfaces with the IPS and the Automated Financial System.

<sup>3</sup> The IPS, the IRS’ nationwide procurement system, includes system maintenance contracts, delivery orders, and descriptions of the computer assets covered by the contract.

<sup>4</sup> We selected retired computer assets because we intended to determine whether payments were being made on maintenance contracts covering them. The sample size was determined by assuming the expected rate of occurrence would not be over 5 percent, plus/minus 4 percent, with a 95 percent confidence level (Source: Appendix D, Table D-2B, *Handbook of Sampling for Auditing and Accounting, Second Edition*, Herbert Arkin). The sample of ITAMS records was selected using a computer software generated random number table. We did not select a statistically valid sample because the audit test results were not projected to the population.

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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- A. Identified Federal Government-wide and IRS policies and procedures for systems maintenance contract performance measures and management reviews to ensure the measures were enforced.
  - B. Reviewed two lists that included 606 systems maintenance contracts (dated April and August 2001) and selected a judgmental sample<sup>5</sup> of 10 maintenance contracts related to major tax processing and tax administration systems. We reviewed the related maintenance contracts and ITS system performance measurement reports to determine whether Procurement employees monitored and measured contractor performance to ensure that contractors met the contract performance requirements.
- III. Compared systems maintenance contracts to identify opportunities for management to consolidate or eliminate systems maintenance contracts and determined the potential savings.
- A. Evaluated IRS management policies and actions that would improve the cost effectiveness of maintenance contracts.
  - B. Reviewed the General Services Administration Federal Supply Schedule (a primary Government source for computer equipment) to identify prices for new computer monitors, printers, and fax machines.
  - C. Reviewed a management report to identify the computer monitor failure rate.
  - D. Reviewed an August 2001 list of 606 maintenance contracts that included 8,043 line item descriptions to identify contracts that covered computer monitors, printers, fax machines, and equipment cabinets and racks. Compared the contract information to the replacement cost and failure rate information for monitors, printers, and fax machines to determine the cost effectiveness of the contracts. We also selected 14 of 175 equipment cabinets and racks in a judgmental sample<sup>6</sup> and verified at one location that the maintenance coverage described in the maintenance contract list did not include the equipment enclosed in the cabinets and racks.

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<sup>5</sup> We selected a judgmental sample that focused the test on major tax processing and tax administration computer systems because downtime on these systems would have the most significant impact on employee productivity and, therefore, tax processing costs. The judgmental sampling technique was used because the results were not projected over the population of maintenance contracts.

<sup>6</sup> We selected a judgmental sample that contained one of each type cabinet and rack described in the contract list. The judgmental sampling technique was used because the results were not projected over the population of maintenance contracts.

**Major Contributors to This Report**

Scott E. Wilson, Assistant Inspector General for Audit (Information Systems Programs)

Gary Hinkle, Director

Danny Verneuille, Audit Manager

Kevin Burke, Senior Auditor

Frank Greene, Senior Auditor

Steven Gibson, Auditor

Kim McManis, Auditor



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## The Management of Information Systems Maintenance Contracts Can Be Improved

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### Appendix IV

#### Outcome Measures

This appendix presents detailed information on the measurable impact that our recommended corrective actions will have on tax administration. These benefits will be incorporated into our Semiannual Report to the Congress.

##### Type and Value of Outcome Measure:

Cost Savings, Funds Be Put to Better Use – Potential; \$1,180,900 (see page 2).

##### Methodology Used to Measure the Reported Benefit:

Review of the descriptions for the 606 maintenance contracts in the Procurement maintenance contract database as of August 11, 2001, identified the maintenance cost paid in Fiscal Year (FY) 2001 for 5,236 computer monitors, 108 printers, 206 fax machines, and 175 computer equipment cabinets and racks. In some instances, the FY 2001 contracts covered only part of the year; therefore, the part year cost was projected to determine the annual cost. Details are shown in the following table:

**Estimated Maintenance Contract Costs for Equipment**

Type	Number Being Maintained	Annual Maintenance Cost
Computer Monitor	5,236	\$394,100
Printer	108	\$13,600
Fax Machine	206	\$43,700
<b>Totals</b>	5,550	\$451,400

*Source: Integrated Procurement System*

We estimated approximately 10 percent of the computer assets would be expected to require repairs each year based on a Procurement organization report that showed 7.2 percent of the 4,918 monitors covered by one contract required repairs in FY 2001. We rounded the estimate to 10 percent because printers and fax machines may require more frequent repairs of their mechanical parts. The replacement cost for the computer monitors, printers, and fax machines (or comparable items) anticipated to fail was determined by researching the General Services Administration's Federal Supply Schedule (FSS), a primary Government source for off-the-shelf computer equipment. The identified cost was then multiplied by the number of items anticipated to fail each year. Details are shown in the following table:

## The Management of Information Systems Maintenance Contracts Can Be Improved

### Estimated Cost to Replace Equipment Anticipated to Fail

Type	Number Being Maintained	Number of Assets Expected to Fail Each Year	FSS Price for Comparable Equipment	Cost to Replace Failed Equipment (1 year)
15" Computer Monitors	5,052	505	\$93	\$46,965
17" Monitors	85	9	\$142	\$1,278
21" Monitors	99	10	\$479	\$4,790
Total Monitors	5,236	524		\$53,033
Inkjet Printers	17	2	\$71	\$142
Laser Printers	91	9	\$185	\$1,665
Total Printers	108	11		\$1,807
Fax Machines	206	21	\$129	\$2,709
<b>Totals</b>	5,550	556		\$57,549 (Rounded to \$57,500)

Source: Integrated Procurement System and General Services Administration's Federal Supply Schedule

Estimated one year savings from the cancellation of maintenance contracts on equipment:  
\$451,400 - \$57,500 = \$393,900

We could not determine the actual age of the assets because the contract information could not be traced to the asset management system (see the finding "Asset Management System Maintenance Contract Information Is Incomplete or Not Input," on page 4). Therefore, we estimated that each asset had an average remaining lifespan of 3 years and the net present value of future savings (calculated using the estimated one year savings and the current Federal Funds Rate of 1.75 percent for 3 years) would be \$1,141,500.

The estimated cost for the maintenance on cabinets and racks is provided in the table below. We did not estimate a replacement cost for equipment cabinets and racks because the likelihood of a cabinet or rack failing is minimal.

### Estimated Maintenance Contract Costs for Cabinets and Racks

Type	Number Being Maintained	Annual Maintenance Cost
Equipment Cabinet & Racks	175	\$13,600
<b>Totals</b>	175	\$13,600

Source: Integrated Procurement System

Since cabinets and racks typically do not require periodic maintenance, cancellation of the maintenance contracts would result in an estimated one year saving of \$13,600. We estimated that each asset had an average remaining lifespan of 3 years and the net present value of future

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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savings (calculated using the estimated one year savings and the current Federal Funds Rate of 1.75 percent for 3 years) would be \$39,400.

Total costs savings resulting from the cancellation of maintenance contracts:

One year savings:  $\$393,900 + 13,600 = \$407,500$

Net present value of future savings (over 3 years):  $\$1,141,500 + 39,400 = \$1,180,900$

### Type and Value of Outcome Measure:

Reliability of Information – Potential; 606 maintenance contracts costing an estimated \$157 million (see page 5).

### Methodology Used to Measure the Reported Benefit:

A query on the Procurement maintenance contract database, as of August 11, 2001, identified all open Information Technology systems maintenance contracts (including delivery orders and modifications). The query results were quantified to determine the amounts awarded for the contracts.

## The Management of Information Systems Maintenance Contracts Can Be Improved

Appendix V

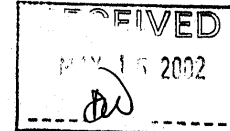
### Management's Response to the Draft Report



DEPUTY COMMISSIONER

DEPARTMENT OF THE TREASURY  
INTERNAL REVENUE SERVICE  
WASHINGTON, D.C. 20224

May 15, 2002



MEMORANDUM FOR TREASURY INSPECTOR GENERAL FOR TAX  
ADMINISTRATION

FROM:

*John C. Reece*  
John C. Reece  
Deputy Commissioner for Modernization &  
Chief Information Officer

SUBJECT:

Management Response to Draft Audit Report - The  
Management of Information Systems Maintenance  
Contracts Can Be Improved (200120011)

The Internal Revenue Service is committed to establishing policies and procedures to ensure we protect resources from waste. We purchase maintenance services for our mission critical tax processing systems and other computer assets that IRS employees use in their jobs. We appreciate your acknowledging our current actions that ensure this protection. These actions include:

- Consolidating our mainframe and mid-level computer systems, resulting in simplified maintenance requirements
- Removing computer equipment from maintenance when maintenance is not cost effective

To ensure we have a consistent policy, I will issue an Information Technology Services-wide overall maintenance policy, which will:

- Establish management accountability for the computer asset maintenance program
- Ensure maintenance contracts are cost effective
- Ensure maintenance contracts do not include items that do not require maintenance
- Coordinate with Procurement to ensure that maintenance contract information is available to manage the maintenance program

I have included additional details in my attached management response. I agree with the benefits outlined in your draft report. If you have any questions, please call me at (202) 622-6800. Members of your staff can call Thomas Mulcahy, Manager, Program Oversight and Coordination Office, at (202) 283-6063.

Attachment

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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### **Attachment**

#### **Management Response to Draft Audit Report – The Management of Information Systems Maintenance Contracts Can Be Improved (200120011)**

##### **Recommendation #1**

The Deputy Commissioner for Modernization & Chief Information Officer should issue an overall ITS maintenance policy requiring managers to ensure that maintenance contracts are cost effective.

##### **Assessment of Cause**

The previous organization structure fragmented maintenance management responsibilities, resulting in inconsistent maintenance approaches.

##### **Corrective Action #1**

The Deputy Commissioner for Modernization & Chief Information Officer will issue an Information Technology Services-wide overall maintenance management policy, which will:

- Establish management accountability for the computer asset maintenance program
- Ensure maintenance contracts are cost effective
- Ensure maintenance contracts do not include items that do not require maintenance
- Coordinate with Procurement to ensure that maintenance contract information is available to manage the maintenance program management

The Director, Enterprise Operations, with input from the Director, End User Equipment and Services (EUES) and support from the Procurement organization, will prepare the policy. MITS Services is addressing this through the MITS Services reorganization and with Procurement's support on the Acquisition Life Cycle.

**Proposed Implementation Date** - January 1, 2003

##### **Responsible Official**

Deputy Commissioner for Modernization & Chief Information Officer M  
Chief, Information Technology Services M:I  
Director, Enterprise Operations M:I:E

##### **Corrective Action Monitoring Plan**

Quarterly, Information Technology Services management will review a sample of the maintenance contracts to determine the effectiveness of the policy, and if needed, take corrective action.

## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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### **Attachment**

#### **Management Response to Draft Audit Report – The Management of Information Systems Maintenance Contracts Can Be Improved (200120011)**

##### **Recommendation #2**

The Deputy Commissioner for Modernization & Chief Information Officer should cancel existing maintenance contracts that are more expensive than the cost of replacing the assets that fail.

##### **Assessment of Cause**

During FY 2001, the ITS End User Equipment and Services organization published guidelines that permit local ITS offices to purchase maintenance contracts for computer assets, such as computer monitors and printers. The guidelines did not require management to ensure that maintenance contracts are cost effective. In addition, these guidelines did not apply to the Enterprise Operations Organization, which does not have written maintenance guidelines for its areas of responsibility.

##### **Corrective Action #2**

The Director, End User Equipment and Services (EUES), will develop the policy for desktop equipment, which establishes management accountability for the desktop computer asset maintenance, and ensures maintenance is less expensive than the cost of replacing assets that fail. We will incorporate this into the ITS-wide overall maintenance management policy.

**Proposed Implementation Date** - December 1, 2002

##### **Responsible Official**

Deputy Commissioner for Modernization & Chief Information Officer M  
Chief, Information Technology Services M:I  
Director, End User Equipment and Services M:I:F

##### **Corrective Action Monitoring Plan**

Quarterly, Information Technology Services management will review a sample of the maintenance contracts to determine the effectiveness of the policy, and if needed, take corrective action.

## The Management of Information Systems Maintenance Contracts Can Be Improved

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### Attachment

#### **Management Response to Draft Audit Report – The Management of Information Systems Maintenance Contracts Can Be Improved (200120011)**

##### **Recommendation #3**

The Deputy Commissioner for Modernization & Chief Information Officer should ensure that maintenance contracts do not include items not requiring maintenance (e.g., cabinets and racks).

##### **Assessment of Cause**

Maintenance often involves replacement of failed parts. This recommendation may result from inadequate descriptions of equipment. These descriptions did not identify functioning components of cabinets and racks including power supplies, fans, and patch boards that may require replacement under a maintenance contract.

##### **Corrective Action**

Corrective Action #1 addresses this recommendation. No additional action is required.

##### **Implementation Date**

Not applicable.

##### **Responsible Official**

Not applicable.

##### **Corrective Action Monitoring Plan**

Not applicable.

##### **Recommendation #4**

The Deputy Commissioner for Modernization & Chief Information Officer should establish management accountability for the computer asset maintenance program.

##### **Assessment of Cause**

Due to the complexity of the IRS computing and network infrastructure and the large number of items included in the inventory, keeping an accurate inventory is difficult.

##### **Corrective Action #4**

Corrective Action #1 addresses this recommendation. No additional action is required.

##### **Implementation Date**

Not applicable.

##### **Responsible Official**

Not applicable.

##### **Corrective Action Monitoring Plan**

Not applicable.



## **The Management of Information Systems Maintenance Contracts Can Be Improved**

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### **Attachment**

#### **Management Response to Draft Audit Report – The Management of Information Systems Maintenance Contracts Can Be Improved (200120011)**

##### **Recommendation #5**

The Deputy Commissioner for Modernization & Chief Information Officer should ensure maintenance contract information is available for program management by coordinating with the Procurement organization to determine and implement the best method for accessing the information.

##### **Assessment of Cause**

The previous organization structure fragmented maintenance management responsibilities, resulting in inconsistent maintenance approaches.

##### **Corrective Action #5**

Corrective Action #1 addresses this recommendation. No additional action is required.

##### **Implementation Date**

Not applicable.

##### **Responsible Official**

Not applicable

##### **Corrective Action Monitoring Plan**

Not applicable.